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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,945	06/06/2000	JOSE VICENTE TOMAS CLARAMONTE	2489-1-001	9439

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EXAMINER

HUFFMAN, JULIAN D

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,945

Applicant(s)

TOMAS CLARAMONTE, JOSE VICENTE

Examiner

Julian D. Huffman

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 21-23, 27-30 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kneezel in view of Hamano (JP 354158232 A) and Ishinaga.

Kneezel discloses a device for printing on a substrate, the device comprising:

projection means for projecting ink on a surface of a flat article in order to print a pattern on said surface (fig. 5, element 19), said flat article arranged on a conveyor means for conveyance in accordance with a trajectory (fig. 5, element 28);

at least one printing head (20) respectively comprising at least two printing modules (19) that are connected to a control unit (column 3, lines 51-63), each of the printing modules being arranged to project ink on the substrate in accordance with a marking width corresponding to a portion of a surface width of the flat article;

operation of each printing module being independently controlled by the control unit ;

each printing module being an extractable module comprising connecting means for individual connection to the printing head (column 5, lines 16-27);

wherein the printing modules are arranged in parallel with a degree of nonalignment with respect to each other, such that the marking width of each printing module extends to the marking width of at least one adjacent printing module (fig. 3);

wherein the marking widths cover at least the substrate width (figs. 3 and 5, column 1, lines 44-46);

wherein the print quality is higher than 200dpi (column 1, lines 29-31);

Kneezel does not disclose the nozzles arranged obliquely with respect to the trajectory of the substrate to be printed on. Additionally, Kneezel does not disclose that each printing module comprises an independent microprocessor and an independent memory.

Hamano discloses tilting a printhead (fig. 3b).

Ishinaga discloses an independent processor (4) and memory (6) provided on a printhead unit, which may be one of several units arranged along the width of a substrate (column 8, lines 49-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kneezel by tilting each printhead unit and by providing a microprocessor and memory on each printhead unit. The reason for performing the modifications would have been to provide a desired increase in print resolution, as taught by Hamano, and shorten the processing time by mounting control circuits on the print head (column 2, lines 54-56), as taught by Ishinaga.

3. Claims 24, 25, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kneezel in view of Hamano and Ishinaga as applied to claims 21-23, 27-30 and 34 above and further in view of Donahue et al. (U.S. 6,155,669)

Kneezel as modified by Hamano and Ishinaga do not disclose multiple print bars.

Donahue et al. disclose multiple print bars for printing on a print medium.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide multiple ones of the print bars disclosed by Kneezel. The reason for doing such would have been to further increase printing speed and provide additional colors by enabling more modules to be provided through the addition of additional printbars (see Kneezel, column 6, lines 2-7).

4. Claims 26 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kneezel in view of Hamano and Ishinaga as applied to claims 21-23, 27-30 and 34 and further in view of Kanemitsu.

Kneezel as modified by Hamano and Ishinaga does not expressly disclose a communication means for connection to a host computer.

Kanemitsu discloses a host computer for transmitting instruction signals or recording information to a printer through a communication means (fig. 9b, element 14, column 6, lines 29-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a communication means for communicating to a host computer in the invention of Kneezel as modified by Hamano and Ishinaga. The reason

for performing the modification would have been to enable connection to a remote computer to transmit instruction signals and recording data to the device.

Response to Arguments

5. Applicant's argument that the examiner has used hindsight reasoning has been considered and is respectfully not found persuasive.

Any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

A critical task of the examiner in formulating an obviousness type rejection is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field, See *Dembiczak*, 175 F.3d at 999, 50 USPQ 2d at 1617.

"There must be a showing of a suggestion or motivation to modify the teachings of that reference", *B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996).

In examining the present application, the examiner has reviewed the references guided only by the teachings therein, therefore the rejection is not a hindsight reconstruction of applicant's invention.

Applicant argues that since the printhead of Kneezel is fixed and the single printhead of Hamano traverses on a carriage, one having ordinary skill in the art would not have considered incorporating the teachings of Hamano into Kneezel. This argument contradicts the most basic knowledge in the ink jet printing field, which even a relatively inexperienced and unskilled artisan would recognize; page width printheads and traversing printheads are art recognized equivalents. Further, Kneezel teaches the equivalence of a page width print bar and a carriage mounted print bar in column 5, lines 65-68 which state that "although fig. 5 shows the print bar 20 as extending across the full width of the sheet 30, it is within the purview of the present invention to provide a print bar of less width which can be mounted on a carriage". Since Kneezel teaches the equivalent of carriage mounted and page width print heads, one having ordinary skill in the art would not have been deterred from incorporating the teachings of Hamano into Kneezel. Further, applicant has provided no evidence that the teachings of Hamano would not provide the benefits of higher resolution if incorporated into Kneezel. Lastly, applicant has provided not evidence that the teachings are not combinable. Applicant's statement that the combination would be complicated is irrelevant and misinterprets the combination of Kneezel and Hamano.

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (703) 308-6556. The examiner can normally be reached on Monday through Friday from 9:30 a.m. to 6:00 p.m.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow, can be reached at (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722. Faxes requiring the immediate attention of the examiner may be sent directly to the examiner at (703) 746-4386. Note that this number will not automatically send a confirmation that the fax was received.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



JH

17 October 2003


Benjamin R. Foster
Supervisory Patent Examiner
Technology Center 2800